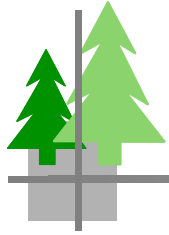


# Minnesota's Woody Biomass Harvesting Guidelines

**David Zumeta, Executive Director, MN Forest Resources Council**  
**DNR Roundtable, St. Cloud, January 4, 2008**





# MN Forest Resources Council -- Responsibilities

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**1995 Minnesota legislature created the Minnesota Forest Resources Council (MFRC). Main responsibilities include:**

- Advise the governor and public agencies on forest policies and practices that result in sustainable forest management, use and protection
- Develop landscape-level forest planning and coordination processes
- Develop comprehensive timber harvesting and forest management guidelines and a monitoring program



# Voluntary Guideline

## Development and Revision

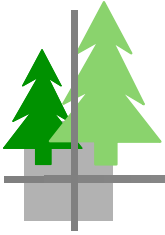
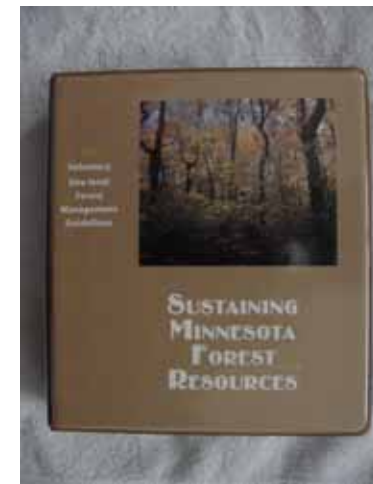
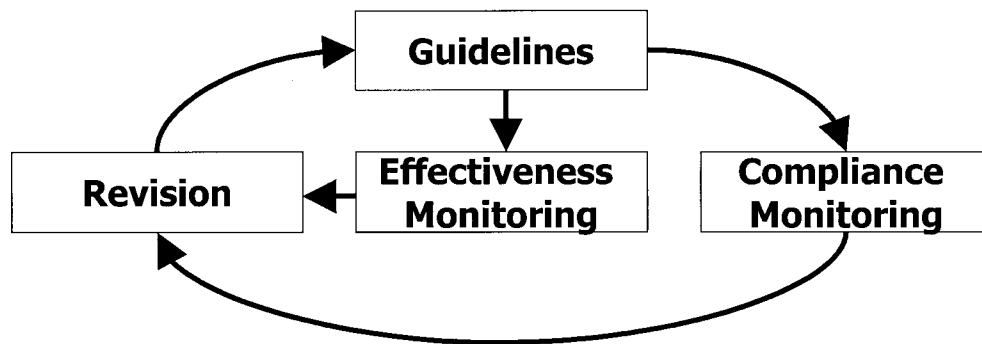
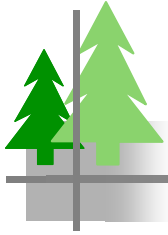


Diagram below shows MFRC approach to guideline development and revision. Guidelines developed in 1996-99 were revised in 2005, and are likely to be revised again in 2009-12, based on monitoring results.





# Woody Biomass Guideline Development

Legislation in 2005 required the MFRC and DNR to develop guidelines for “sustainably managed woody biomass” on forestland, brushland, and open land:

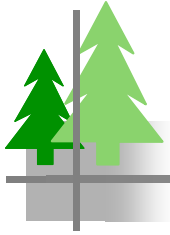
*Forestland guidelines “must be adopted...for logging slash, using the most recent available scientific information regarding the removal of woody biomass from forest lands, to sustain the management of forest resources..., **with particular attention to soil productivity, biological diversity..., and wildlife habitat.**”*

Similar mandate for brushland and open land guidelines.



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# HF 1026 and SF 69

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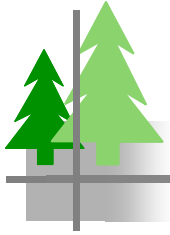
“Sustainably Managed Woody Biomass” includes:

- Brush and trees removed from rights of way
- Upland and lowland brush harvested as part of brushland habitat management
- Logging slash or residue created by timber harvest, TSI, fuel management, or insect & disease control or treatments



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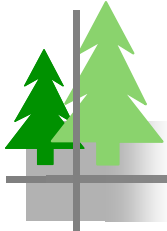
# Scope of Biomass Guidelines

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- Address the sustainable harvest of woody biomass while protecting the soil, water, wildlife habitat, and biodiversity that are essential to a healthy and sustainable ecosystem
- Apply statewide
- Address the harvest of woody biomass, not traditional roundwood harvest
- Do not address agro-forestry or harvest on rights-of-way
- Audience: equipment operators, contractors, loggers, biomass procurement agents, natural resource managers, landowners





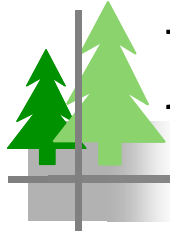


# Biomass Guideline Development Process

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- DNR asked MFRC to take the lead in developing brushland and open land as well as forest biomass guidelines
- MFRC appointed 12-member committee with soil science, wildlife biology, hydrology, forest management, silviculture, and logging expertise to develop both sets of guidelines
- Monthly meetings: fall 2005 – spring 2006
- Worldwide literature review
- Draft guidelines - January 2007
- Peer and public review - spring 2007
- Guidelines approved by Council - May 2007





# Biomass Harvesting Guidelines

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## Supplement to Minnesota's Timber Harvesting/ Forest Management Guidebook:

- Biomass Harvesting on Forest Management Sites in Minnesota
- Woody Biomass Harvesting for Managing Brushlands and Open Lands in Minnesota

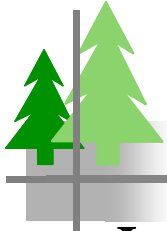
**First guidelines for sustainable harvest of woody biomass for energy in the United States**



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# Forest Guideline Contents

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- **Introduction**
- **Rationale**

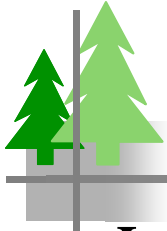
**Wildlife and Biodiversity, Water Quality, Riparian  
Management Zones [RMZs], Soil Productivity**

- **Planning, Design and Operational Activities**

**Biomass Harvest on Sensitive Sites, Managing Water  
Quality and RMZs, Managing Soil Productivity, Re-entry  
into Previously Harvested Sites to Remove Biomass,  
Managing and Retaining Wildlife Habitat and Structural  
Diversity, Biomass Harvest for Fuel Reduction**

- **Post-Operational Activities**
- **Biomass Harvest as a Tool for Silvicultural Management**



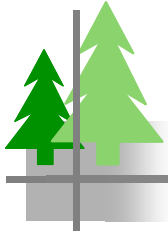


# **Brushland/Open Land Guideline Contents**

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- **Introduction and Rationale**
- **Plannug, Design and Operational Activities**
  - Designing Operations to Fit a Sustainable Management Plan, Cultural Resource Protection, Sensitive Area and Species Protection, Managing Visual Quality and Reducing Conflicts with Recreational Users, Soil Resource Protection, Water Resource Protection, Filter Strips, Riparian Management Zones, Reserve Areas, Snags, Managing the Harvest Site and Infrastructure, Landings and Stockpile Areas**
- **Post-Operational Activities**





# Final Products

- Designed as two additional chapters in the current Site-Level Forest Management Guidelines (FMGs)

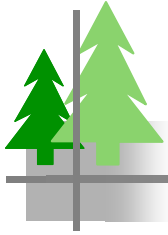


- Include references to general guidelines, timber harvesting guidelines and TSI chapters



- Have you identified your objectives?
- Have you conducted a site inventory?
- Considered the suitability of the site for biomass harvest as it relates to presence of endangered or threatened species, sensitive sites.
- For ALL activities review and implement the **General Guidelines**
- For all biomass harvest on forest sites review and implement the **Timber Harvesting guidelines**
- If an access road will be constructed / utilized for this biomass harvest – review and implement the **Forest Roads guidelines**
- For TSI activities follow applicable guidelines in this chapter as well as the guidelines found in the TSI chapter.



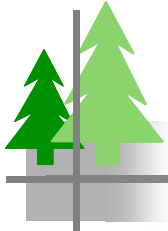


# Biomass Guideline Availability

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- Two new biomass guideline chapters available later this month
- Chapters already accessible on-line at [www.frc.state.mn.us](http://www.frc.state.mn.us)
- Hard copies can be requested by calling Leslie McInenly at (651) 603-6761 or e-mailing her at [mcine017@umn.edu](mailto:mcine017@umn.edu)
- We **strongly recommend** inserting new guideline chapters into the current Site-Level Forest Management Guidelines. Hard copies of the current guidelines (but **not** the new chapters) are available today



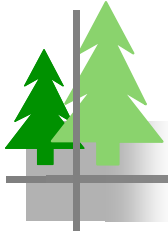


# Biomass Research Needs

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- Biomass guideline technical team identified research needs
- 2007 legislation: \$300,000 to conduct research on site-level ecological impacts of woody biomass harvest
- RFP is being sent out
- Council's Forest Resources Research Advisory Committee will meeting to review and select research proposals





# Questions?

